MONTEREY BAY

SMILELINE

THE NEWSLETTER OF THE MONTEREY BAY DENTAL SOCIETY

SUMMER 2021

- Dentist of The Year
- MBDS Office Remodel
- Restoration of Endodontically Treated Teeth
- Treating Odontogenic Pain in the Pandemic
- Endodontic Management of The Open Apex in Children

Evolution in Endodontics

"Most of the important things in the world have been accomplished by people who have kept on trying when there seemed to be no hope at all."

—Dale Carnegie

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SmileLine

The Newsletter of The Monterey Bay Dental Society

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Dr. Carl Sackett, DDS,
Editor

Summer is upon us, and as the weather gets warmer, I grow more and more enthusiastic about the circumstances surrounding the pandemic. Yes, there is still work to be done, but I think we have all witnessed snippets of normalcy springing up here and there. The vaccination efforts still surge forward, and it has been heartening to see dental professionals contributing to the global effort. Making a trip back to the Monterey Bay Aquarium was a welcomed disruption to the routine, and it was nice to be reminded that some things never change.

That being said, we have decided to revisit our theme of Evolution in Endodontics, which needed to be tabled in March of last year due to the COVID shutdown. It is finally an appropriate time to share the information we've gathered for the members, and blow the dust off this postponed topic.

The field of Endodontics is incredibly fascinating, and technologies are continually emerging to help improve patient outcomes, and decrease chair time. Cone Beam Computed Tomography is becoming more and more visible within the specialty, and one of CDA's most recent journals focused specifically on CBCT in Endodontics. The American Academy of Endodontists continues to advocate for its members, and remains at the forefront of current events and relevant developments. Like the other dental specialties, Endodontists haven't been immune from media disinformation, and statements from the AAE (and others) led Netflix to remove the conspiracy-laden documentary, "Root Cause" from its platform.

Many words of thanks need to be shared regarding the compilation of content for this issue. Three of our very own member doctors have taken time out of their busy schedules to contribute articles for this special edition. Dr. Bryan Mansour discusses the restoration of endodontically treated teeth, and the various factors that should be taken into consideration. Dr. Lily Kaykha reviews diagnosing and treating odontogenic pain (an issue that has become more apparent during the pandemic).

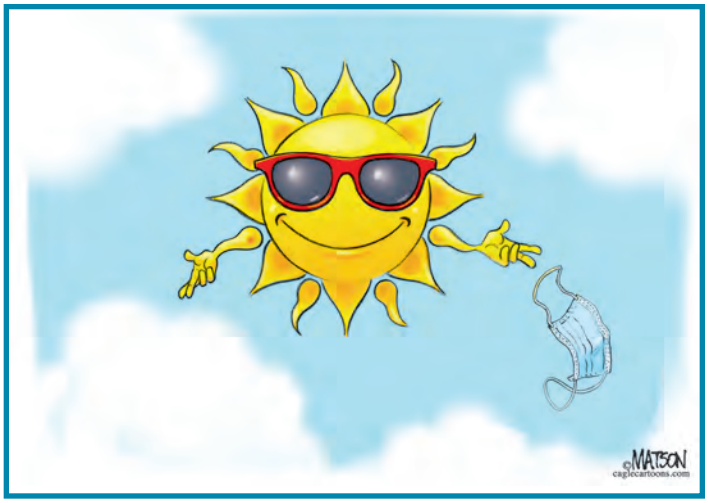
Finally, Dr. Xudong ("Don") Yang has provided an intriguing article regarding Endodontic Management of Open Apices in Children. I think you'll find each of these articles educational and informative, and a heartfelt Thank You goes out to these doctors for dedicating their time and energy on our behalf.

I saw recently that over 15 million root canals are performed in the United States annually! I think it goes without saying that this specialty is thriving and evolving now more than ever. I wish you all a fun and enjoyable Summer with your family and friends. I will end with a quote that was recently shared amongst the UOP Alumni by Dean Nader Nadershahi:

"*And so with the sunshine and the great bursts of leaves growing on the trees, just as things grow in fast movies, I had that familiar conviction that life was beginning over again with the summer.*" — F. Scott Fitzgerald

In Summertime joy,

Carl Sackett, DDS
MBDS SmileLine Editor



2020 MBDS Installation of Officers and 2020 Dentist of The Year

Add the 2020 Installation of Officers Meeting to the list of cancelled events due to the Pandemic. While we were unable to gather in person, we were still able to present awards to the annual recipient of Dentist of the Year.

The 2020 Award was presented to Dr. Curtis Jansen, on December 23rd. In addition to running a busy private practice in Monterey, Dr. Jansen's contributions to the Dentistry4Vets mission have proved invaluable and significant. The philanthropic procedures rendered by he and his dental team have changed the lives of local veterans, and he continues to remain involved in the organization's efforts. Thank you, Dr. Jansen, for serving as an inspiration to all our doctor members on the benefits of becoming involved in non-profit dental care, and treating the underserved.

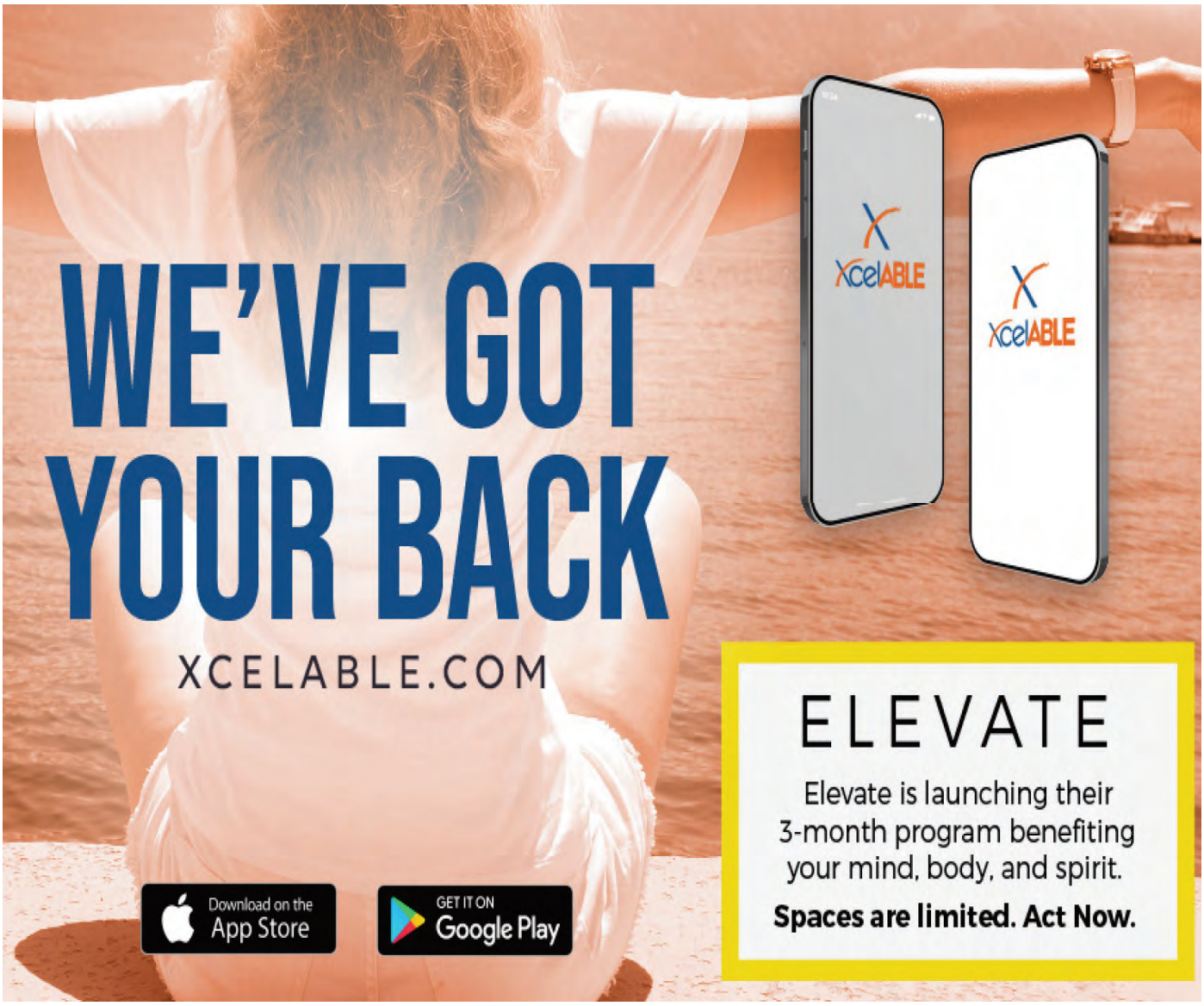
Also acknowledged was Dr. Steve Ross, who unexpectedly became in charge of the MBDS efforts to deal with the impacts of COVID-19 on the local dental community. With information changing on a daily basis, the need to keep updated on a fluid and dynamic situation became obvious. Dr. Ross showed that he was the right doctor for the job, and exhibited true leadership during an unprecedented time for our component. Dr. Zerbe presented his special award on January 8th, 2021, at his office, alongside his proud dental team.

The MBDS is hoping to be able to host the Installation of Officers again this year, and the Board of Directors has plans to discuss the topic at upcoming meetings. We are keeping our fingers crossed for the ability to be able to hold this fun event once again for our members.

On June 17th and 24th, the Monterey Bay Dental Society once again hosted two "Shred-A-Thons" for our members. Feedback from the prior events led to the realization that a location in north county was needed as well. Dr. Julius Kong and staff were gracious enough to open up their office for the second event, in order to accommodate offices from the Santa Cruz area.

The events were made possible by co-sponsorship from the California Dental Association, TDIC and Same-Day Shred (www.samedayshred.com). Taco plates were served by Tacos Don Beto, and volunteer donations to the Cabrillo Dental Hygiene program raised a ***total of $1,049.00!***

The Shred-A-Thon events continue to be a great member benefit for the MBDS, and we will continue to keep you posted about others in the future.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Monterey Bay
DENTAL SOCIETY

FACILITY USE AVAILABLE

The Monterey Bay Dental Society (MBDS) is pleased to make the society's newly renovated board room available for use to its members upon request and availability. The board room is large enough to accommodate 16-20 of your colleagues or staff comfortably. It is an excellent location for a staff retreat or study group. You will have access to the wireless internet, big screen television and zoom conferencing, coffee pot and microwave. There is additional space to accommodate a caterer or take out.

Members' Meeting Rates:
Evening meeting (2-4 hours): $99
All-Day meeting: (6-8 hours): $199

- Facilities are available during normal MBDS business hours: Monday - Friday from 9am - 5pm.
- After hours use is also available.
- MBDS reserves the right to approve only those events/uses that are deemed appropriate for this venue.
- Day time parking is limited. Please call for more information.
- Payment is due prior to the event.

Contact Debi Diaz by phone at (831) 658-0168 for additional information or to make a reservation.

CARMEL
Joseph Choi, DDS

MONTEREY
Michael Rice, DDS

MARINA
Ngoc Bui, DDS

SCOTTS VALLEY
Kevin Ma, DDS

We encourage old members to reach out and welcome our new members if they have not done so already. We are excited and happy to have them join us!

For information about contacting our new members visit the member only section of the website for the full member directory that includes addresses and phone numbers.

Save the Dates:

Friday, October 8, 2021 – 6:30 – 11:00 pm

Staff Appreciation Event – *"Denim & Diamonds"*

BBQ, Line Dancing and more! Western Theme

Hidden Valley Music Art Center
104 W. Carmel Valley Rd.
Carmel, CA

More Info Coming Soon, Partners!

Friday, November 19, 2021 – 6:30 – 11:00 pm

Installation of Officers Dinner/Dance

Pasadera Country Club, 100 Pasadera Drive, Monterey, CA.

Continuing Education -

Dates, times and locations to be announced soon!

October: "All on Four" Zoom lecture and limited space hands-on, in-person, training
November: Cosmetic Bonding
December: Sexual Harassment Training

WELCOME TO OUR 2021 BOARD OF DIRECTORS

President	*Matthew Wetzel, DDS*
President-Elect	*Matthew Ronconi, DDS*
Vice President	*Devin Bernhardt, DDS*
Secretary	*Jennifer Lo, DDS*
Treasurer	*Richard Kent, DDS*
State Trustee	*Nannette Benedict, DDS*
Immediate Past President	*Steven Ross, DDS*
County Directors	*Rajneesh Dail, DDS, Sarah Frahm, DDS, Julius Kong, DDS, Christopher Mule, DDS, and Joseph Robb, DDS, Lindley Zerbe, DDS*
Publications	*Carl Sackett, DDS*
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Ethics Committee	*David Shin, DDS*
New Dentist Committee	*Garrett Criswell, DDS*
Membership Committee	*Devin Bernhardt, DDS*
Continuing Education Committee	*Matthew Ronconi, DDS*

> *"The best and cheapest dentistry is when the right thing is done extremely well the first time and it lasts for a long time."*
>
> — Author Unknown

HIPAA Compliance: Invest or Roll The Dice?

By Jeff Broudy – CEO, PCIHIPAA

Where Should I Start to Become HIPAA Compliant?
Many believe HIPAA compliance is a "set-it-and-forget-it" exercise. Well, not exactly. HIPAA compliance is an ongoing requirement, whether you're a small practice with a limited budget or if you're a large office with multiple locations. There is no HIPAA Certification. HIPAA compliance is environment that you have to show written proof of upon audit.

Maybe a lack of time, knowledge or resources have impacted your HIPAA Compliance for your practice. Our goal is to provide you with information to accurately plan and predict your compliance budget.

First, Some HIPAA Compliance Considerations:
The cost of HIPAA compliance depends on many variables. We've identified some of the key factors to consider:

- **Your organization type:** Are you a privately-owned dental practice, multi-location, or DSO? Your organization will have varying amounts of protected health information (PHI) and risk levels.
- **Your organization size:** The more employees, programs, computers, PHI, and departments that your practice has will increase the number of vulnerabilities you might encounter.
- **Your organization's culture:** If data security is management's top priority, you have most likely invested in a cybersecurity program. If not, HIPAA Compliance costs will increase due to the additional training and policy requirements for your staff.
- **Your organization's environment:** If cybersecurity was considered when purchasing, implementing, and maintaining devices, the costs to comply with HIPAA should be lower for your practice. This includes computers, software, firewalls, servers, and more.
- **Your organization's dedicated HIPAA workforce:** A dedicated HIPAA team or third-party provider will help to determine what requirements your practice needs. In fact, the American Dental Association has published guidelines to help dental practices determine criteria for a 3rd Party Provider.

The Cost of a Data Breach
If Health and Human Service's estimate of compliance seems daunting, the costs related to non-compliance are even greater. For not protecting PHI, a practice can face the following fines and penalties:

- Health and Human Service's fines: up to **$1.5 million per violation per year**
- Federal Trade Commission fines: **$16,000 per violation**
- Class action lawsuits: **$1,000 per record**
- State attorneys general/potential fine assessment: **$150,000 – $6.8 million**
- Patient loss/not returning to doctor due to breach: **40%**
- Free credit monitoring for affected individuals: **$10-$30 per record**
- ID theft monitoring: **$10-$30 per record**
- Lawyer fees: **$2,000+**
- Breach notification costs: **$1,000+**
- Business associate changes: **$5,000+**
- Technology repairs: **$2,000+**

When you look at the high costs paid by practices found in violation of HIPAA, it's obvious the consequences are meant to penalize those who don't adequately protect patient information. OCR Director Roger Severino announced during a 2018 HIPAA Security Conference:

"The next round of examinations will be focused on enforcement and the upcoming audits will use harsher investigative tools to hold bad actors accountable."

With an increase in Audits, HIPAA compliance is more important than ever. Protect your practice's finances and reputation by becoming HIPAA Compliant.

Estimated Compliance Costs:
Whether you decide to take on HIPAA compliance internally, or seek a trusted advisor, we've outlined some of the material costs you should expect to incur. Obviously, the key considerations above will impact your investment decisions.

If you are a private dental practice, annual compliance costs are outlined below on an a-la-carte basis. There are companies that combine some or all of these services, however this will give you a good ideas of the range that you should consider to protect yourself from the potential losses outlined above:

- Risk Analysis and Management Plan ~ $1,000 to $2,000
- Employee Security and Privacy Training ~ $2,000 to $3,000
- Policy Development ~ $1,000 – $2,000
- E-mail and Data Backup ~ $500
- IP Scanning and PCI Certification ~ $250
- Business Association Management and Documentation ~ $500
- HIPAA Compliance Documentation and Audit Support ~ $300
- Emergency and Incident Response Planning ~ $1,000
- Data Breach and Network Security Insurance ~ $2,000 (not required; recommended)
- Additional Technical Safeguards (password management, device monitoring, firewall and anti-virus updates) ~$1,000 to ~ $2,000

Larger practices with multiple locations and 25+ employees can expect to pay many multiples above the costs above.

Final Thought:

HIPAA is often viewed as a bad word throughout the healthcare industry. However, protecting the privacy and security of your PHI is something every dentist should take seriously. OCR is taking more aggressive steps to police an under compliant industry. When developing a HIPAA compliance strategy for your office, you will need to balance the resources you allocate compliance with your risk tolerance and levels. Now is not the time to ignore HIPAA law, however with the right strategy and advisors, you can make progress quickly and easily and prevent the ramifications of HIPAA non-compliance and/or a data breach. Probably not a good idea to roll the dice, but you also don't need to break the bank.

To learn more about PCIHIPAA's compliance services and to take advantage of complimentary compliance resources sponsored by Monterey Bay Dental Society visit Pcihipaa.com/montereybay.

2021 Monterey Bay Dental Office Remodel

While the pandemic shutdown invariably disrupted many aspects of life, it also provided unanticipated opportunities to focus on otherwise overlooked projects. The Board of Directors had been meeting in the Dental Society office at 8 Harris Court for many years, and other dental gatherings had been accommodated there as well. While the space served its purpose overall, it was becoming evident that it needed a makeover quite badly. In addition to the outdated décor and furnishings, the poor utilization of space was growing evident over time.

As the Board of Directors began to host meetings via ZOOM in 2020, ample time arose to finally complete an overhaul of the office space. After much deliberation and conversations during several Board Meetings, a project was eventually approved and given the green light. Construction began in the Fall of 2020, and was completed in the Spring of this year.

The new look of the Dental Society office is absolutely amazing, and for those of you who haven't visited recently, it will seem unrecognizable. New and prospective members to the Dental Society can visit the office and enjoy the fresh, contemporary upgrade. The recent budget surplus for the Dental Society made this project possible, and these renovations are truly money well spent.

In April, the first CPR course was held at the office, and several local Study Groups have gathered since then. On May 11th, the very first BOD meeting was held in-person, along with some virtual attendees. It is our intention to host member socials in the office as well, so keep your eyes peeled for invites coming to your inbox.

A very special and heartfelt "Thank You!" goes out to Jennifer Ross and her son, Ben, who were critical to overseeing the project. The MBDS found a diamond in the rough with Jennifer, whose gifts and talents proved invaluable throughout the process. From the day she volunteered to help with the restoration, we could tell we were in good hands. Jennifer, your energy and efforts are greatly appreciated, and didn't go unnoticed. The MBDS is incredibly fortunate to have you advocate and dedicate your time on our behalf.

BEFORE

Another Thank You goes out to all the members who contributed such beautiful photographs for the wall of Central Coast landscape that now adorns the space. All areas are represented, including Monterey, San Benito, Santa Cruz, and South County as well—a poignant reminder of what a majestic place we get to live and work.

Lastly, the MBDS would also like the acknowledge the Gouin Construction Company, from Paso Robles, who served as contractor for the job. They were professional, timely, and efficient, and the BOD can testify for others who opt to utilize their services:

www.gouinconstruction.com.

GOUIN
CONSTRUCTION AND DEVELOPMENT

When you have time, stop by and check out the MBDS Office improvements – they are something for which we can all be proud!

AFTER

2021 Monterey Bay Dental Office Remodel (Continued)

First CPR Course Held in Newly Remodeled Office

2021 Monterey Bay Dental Office Remodel (Continued)

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The Goldman Law Firm provides aggressive cost-effective and result-oriented representation to our clients. GLF focuses its practice in the representation of dentists in all of the practice areas which a dentist will typically encounter during his/her practice career.

Business Law and Litigation: GLF attorneys have comprehensive experience with the sale and acquisition of dental practices, associate agreements and partnership/corporation formation. We also handle business related lawsuits between dentists. Our knowledge with business litigation spans such issues as practice value matters, loss of goodwill, unfair competition via patient solicitation, actions against former associates, partnership dissolutions and breaches of either practice sale or associate agreements. GLF has the experience in this field second to none!

Employee Relations: GLF recognizes the need for expert advice in labor and employment contracts and disputes in today's high-risk professional environment. One of the most significant concerns facing a dentist is how to minimize the risk of an employee-based lawsuit. GLF proactively provides dentist/owner protection with effective staff employment agreements, policy manuals with mandatory dispute notice provisions, and binding arbitration of disputes. GLF defends dentists in matters ranging from Labor Commissioner actions, whistle blower claims, gender based claims, PAGA actions and traditional wrongful termination of claims.

Malpractice Defense: GLF has one of the most successful track records in winning jury trials and arbitrations in malpractice cases involving restorative, endodontic, periodontic, orthodontic, nerve injury, osteomyelitis and complicated infection issue cases. GLF welcomes doctors to contact them regarding potential claims or to obtain a second opinion on a malpractice defense position.

Having the right lawyer can make the difference between winning or losing and between a really good deal or a really bad deal! For those reasons, consider The Goldman Law Firm for your legal needs.

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Restoration of Endodontically Treated Teeth

Dr. Bryan Mansour

Endodontic and restorative procedures are closely related and interdependent. In fact, many studies have shown that outcomes are determined equally by the quality of the endodontic treatment and the quality of the subsequent restoration. During endodontic treatment, much consideration is given to isolation, effective irrigation and the maintenance of asepsis. It is critical to restore the endodontically treated tooth as soon as possible after completion of endodontic treatment to prevent coronal leakage, as temporary restorations are not effective for extended periods of time. Delaying restorative treatment to assess healing after endodontic treatment rarely benefits the patient, as delayed or inadequate placement of a permanent restoration can result in bacterial contamination or fracture. Other factors include inadequate thickness of temporary restorations, remaining carious dentin and open margins. Many studies have demonstrated that the temporary restoration should be a minimum of 3 mm thick, and that Cavit provides a superior seal than IRM or unbonded composite resins. In any case, bacterial contamination of the canal occurs within days or weeks unless a high quality permanent restoration is placed.

Interorifice barriers can be achieved by placing dentin bonded composite, amalgam, resin modified glass ionomer cement (Rely-X, TheraCem, etc.) or bioceramic into the orifice after the removal of 2-3 mm of gutta percha. These can provide more protection from leakage beneath a temporary restoration until the permanent restoration is placed. If using composite, note that the low-viscosity products are simple to manipulate and precisely place. Choose one that is either clear or a contrasting shade (clear, white, purple, blue, etc.) to distinguish the barrier material from dentin.

Bonded composites and amalgam are the most common core materials and are quite retentive utilizing undercuts and remaining sound enamel and dentin. Traditionally, research has shown that posts cannot be expected to strengthen roots, but function primarily to retain the core. More contemporary research provides growing evidence that fracture resistance of roots is increased with fiber posts, rather than metal posts, most likely because the elasticity approximates that of dentin. With the development and availability of newer and better bonding materials, posts are rarely necessary for core retention except in cases of significant loss of tooth structure. Posts should be placed in the largest root (palatal of maxillary molars and distal of mandibular molars), avoiding thin dentin walls and concavities in smaller and more curved roots. Some concepts of post design and placement include:

- The canal should not be enlarged to fit the post-the post should be selected to fit within the existing space to avoid unnecessary removal of dentin and thinning of the root
- Retention is determined by post length, rather than diameter
- A minimum of 4mm of canal obturation material should remain apically
- The post should extend sub-crestally at least as far as it extends supra-crestally but, in most instances, should not extend much beyond mid-root
- When luting the post into the canal, curing light penetration is limited. Therefore dual- or self-curing resin adhesives should be used after careful cleaning and conditioning of the dentin walls. Resin modified glass ionomer cements are also very effective and less dependent on etching and priming procedures.
- Because anterior teeth are subject to greater lateral forces than posterior teeth, a ferrule of at least 1.5 mm is critical to increase fracture resistance of the root. The lingual or palatal ferrule is the most important aspect. An incomplete or insufficient ferrule is associated with greater variations in load bearing and can leave the root vulnerable to fracture.

In cases of inadequate biologic width, crown lengthening or orthodontic extrusion can be considered to allow for proper margin placement to promote periodontal health and reduce the risk of recurrent caries or marginal leakage.

Recently, there has been a paradigm shift towards minimally invasive endodontic (MIE) access. With the development of flexible heat-treated nickel titanium files and contemporary irrigation and obturation philosophies, conventional tenets such as straight-line access, complete unroofing and exposure of the pulp chamber, and large apical preparation have been challenged. The fundamental philosophy is that teeth with more remaining dentin are stronger. Indeed, there

are many cases in which full coverage is unnecessary. For example, anterior teeth that are largely intact may be restored with bonded composite with or without fiber posts. Posterior teeth with remaining intact marginal ridges and which are not compromised bucco-lingually can be restored without full cuspal coverage. While MIE theory is based on the fact that "more dentin = more strength," in practice the overwhelming majority of teeth which require endodontic treatment are compromised by caries, existing restorations or fractures, and require full coverage crowns.

Awareness of biological requirements, assessment of long term prognosis and survivability, and an understanding of the advantages and limitations of available materials are important factors in determining how and when to restore a tooth after endodontic treatment.

Dr. Bryan Mansour

Dr. Bryan Mansour is an Endodontist in Salinas. He graduated from Medical College of Virginia School of Dentistry and practiced general dentistry for nine years. He completed his endodontic residency at USC and has been in solo practice in Salinas since 1997.

He is a Past President of the MBDS, and currently serves as President of the California State Association of Endodontists. He is a Diplomate of the American Board of Endodontics as well.

> *Perseverance is not a long race; it is many short races one after the other.*
>
> — Walter Elliot

Treating Odontogenic Pain in the Pandemic

Dr. Lily Kaykha

All of us in the dental community are well aware of the increase in parafunctional activity over the past year. Dental literature from around the world is replete with reports of increased bruxism, clenching, and orofacial pain during the pandemic. While I do not usually treat the many manifestations of TMD, I do see with frequency the elusive and sometimes frustrating "Cracked Tooth Syndrome."

Successful diagnosis of cracked tooth syndrome requires awareness of its existence and appropriate diagnostic tests. These teeth often have an extensive intra-coronal restoration, compounded by parafunctional habits such as bruxism.

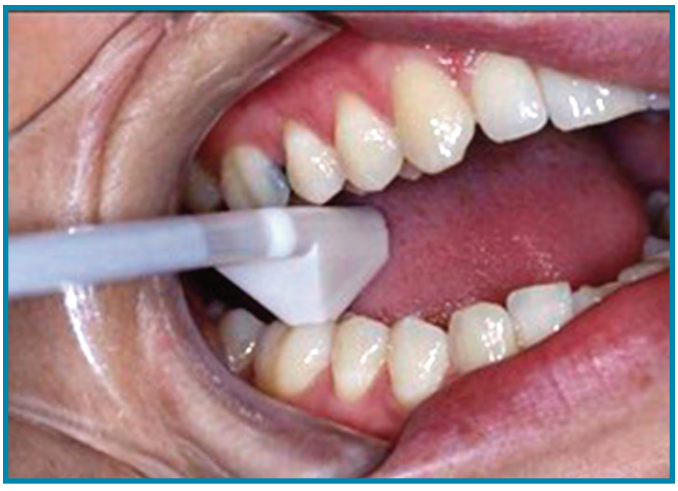
The most important diagnostic criteria are as follows:

1 - History elicited from the patient - Listening to the patient's chief complaint is essential (attempt to reproduce the chief complaint)

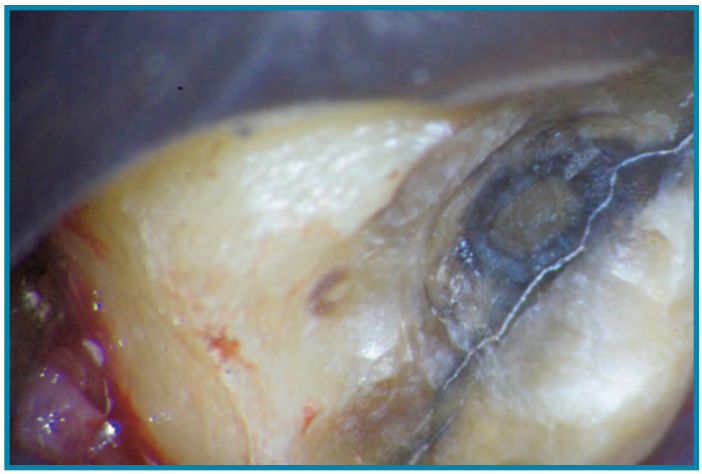
2 - Tooth Slooth: Pressure applied via occlusal forces (pain occurs upon release)

3 - Vitality Testing (usually a positive response)

4 - Percussion usually not a positive response in an axial direction



Tooth slooth



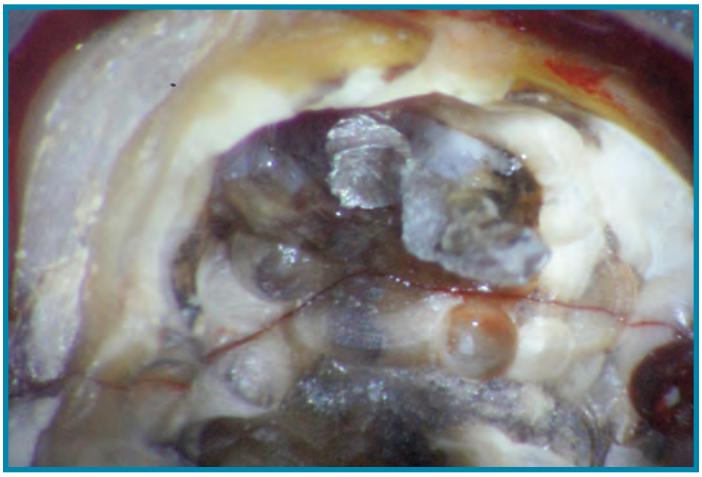
Methylene Blue Stain of Occlusal Crack

5 - Use of trans-illumination (methylene blue stain can be very helpful in isolating the problem)

6 - Use of loops and/or microscope to establish the position and extent of the crack (While cracks are not visible in conventional radiographs or CBCT, a U-shaped lesion in the furcation and a J-shaped radiolucency extending from the apices into the furcation is usually indicative of a vertical root fracture).

7 - Probing could be one of the most important diagnostic tools (In a cracked tooth, we are looking for a narrow, isolated probing defect).

Ultimately the tooth needs to be restored with a protective restoration such as a full coverage crown, an on-lay, or a three-quarter crown with adequate cuspal protection. Depending on the extent of the crack and its direction, the tooth should be endodontically treated to alleviate the symptoms prior to the protective restoration placement.



Occlusal Crack Extending Vertically Beyond the Alveolar Bone

When vertical cracks occur or they extend through the pulpal floor (or below the level of the alveolar bone), the prognosis is hopeless and the tooth should be extracted.

Another subject drawing attention today is the changing landscape of pain management for cracked teeth and/or irreversible pulpitis (IP). A cracked tooth often presents itself as a "HOT TOOTH" due to irreversible pulpitis. When I was in training, it was sufficient to know that local anesthetics work by blocking sodium channels. Extensive research done by Dr. Kenneth Hargreaves D.D.S., PhD has revealed that these Na channels come in nine or ten different flavors or classes. This new information was featured in the American Association of Endodontists podcast Episode 21, which was released on March 5. Eight of these channels are easily blocked by Tetrodotoxin (a neurotoxin found in nature) and by our local anesthetics. On the other hand, two classes of Na channels are known as TTX resistant. It is these two channels that are resistant to local anesthetics. The two resistant channels (also labeled NaV1.8 and NaV1.9) show up regulation of six times and three times respectively in the presence of irreversible pulpitis.

We also are aware of the increased presence of prostaglandins during IP which in turn may double the intake of Na through the channels. Multiple clinical trials have now shown that prophylaxis with NSAIDs will decrease prostaglandin activity during IP and aid in anesthetizing the hot tooth.

For instance, if we have a patient of known medical history, and can take NSAIDs, we prophylactically administer 400 - 600 mg of Ibuprofen before they come for their appointment. If the patient is new and you clear the past medical history for NSAIDs, you can administer a fast-acting NSAID such as Advil Liqui-Gel or Ibuprofen NaSalt 400 - 600mg, and have them wait while you see another patient. Once you return, anesthesia should be more manageable. For these cases requiring additional anesthesia such as intra-pulpal or intraosseous infiltrate, Articaine has shown to be 3x more effective than Lidocaine.

The current consensus on managing the postoperative pain is most definitely shifting away from narcotics, due to the rise in the opioid crisis especially during the pandemic.

Dr. Lily Kaykha, D.M.D.

Dr. Lily Kaykha earned her Doctorate of Dental Medicine from Tufts University in 1990. After completing her D.M.D. degree, Dr. Kaykha received her certificate for advanced studies in the field of endodontics from Boston University's Henry M. Goldman School of Dentistry in 1992 where she was trained by Dr. Herbert Schilder, one of the world leaders in the field of endodontics.

After graduation, Dr. Kaykha practiced as an endodontist in the Boston area. She then was married and moved to Long Island, New York where she maintained a private practice limited to endodontics for eleven years. During this time she also volunteered as an associate clinic professor at the Stony Brook School of Dental Medicine.

Dr. Kaykha started a private practice in the Monterey Peninsula, where she currently resides with her family.

She is a member of The American Association of Endodontists, The California Dental Association, The Monterey Dental Society, and The Monterey Peninsula Chamber of Commerce. Outside of her passion for endodontics, Dr. Kaykha enjoys spending time with her two children and also finds pleasure in exploring the beautiful Monterey Peninsula.

The most recent literature suggests treatment with 400mg ibuprofen / 325 acetaminophen, q6hours for mild to moderate pain, and 600mg ibuprofen / 500 acetaminophen q6hours for severe pain. It must be noted that elevated doses of ibuprofen for more than seven days act as a Cox2 inhibitor and may increase the risk of a prothrombotic event (stroke and myocardial infarction). For this reason, elevated doses of Ibuprofen should be limited to two or three days, and PRN pain only afterwards.

My hope is that in these difficult times, the above insights might help our field in navigating increased cases of bruxism and IP, and in providing lasting relief for our patients.

"Dentists are medical professionals who help you put your money where your mouth is."

— Author Unknown

“Your smile is the prettiest thing you’ll ever wear.”

— Author Unknown

Endodontic Management of The Open Apex in Children

Dr. Xudong "Don" Yang, D.D.S., Ph.D., M.M.Sc.

When a permanent tooth erupts, the root structures remain immature during the next several years. It is shorter in length, thinner in the width of dentinal walls, and shows wide-open apex, also known as blunderbuss apex. During this period, trauma, deep carious decay, and other factors could irreversibly injure the pulp, thereby putting the immature root at the risk of arrested development. Poor structural strength of the immature root could lead to tooth loss later in life due to root fracture.

Endodontic management of immature teeth with open apices are different from those for mature permanent teeth. Conventional root canal treatment is best avoided or postponed, with the goal of allowing continued development of the root structures.

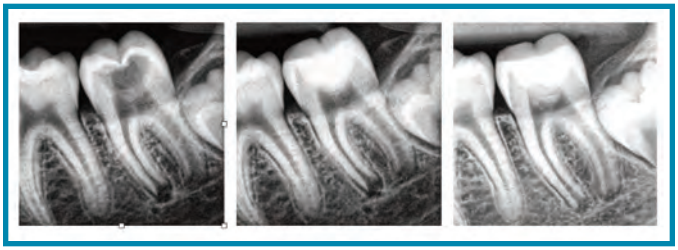
When a child presents with an affected permanent tooth involving the pulp, one of the first questions is whether the apex is open or closed. In most cases, this information can be evident from the radiographs. In addition, the closure of the apex follows a simplified "plus 3 years" observation. The maturation of the permanent root, on average, completes after 3 years post eruption [ref 1]. For example, the maxillary central incisor typically erupts around 7-8 years of age, and the root development is near completion around 10. Therefore, an 8 or 9-year-old child is likely to show an open apex on the maxillary central incisor. An open apex provide better healing capacity presumably due to more blood supply and the presence of stem cells remaining around the open apex which can be used to repopulate the pulpal space.

The other question is whether the involved pulp is vital or necrotic. A vital pulp is a more favorable situation, and the treatment is more straightforward. Vital pulp therapies should be attempted with the goal of maintaining the vitality of the pulp and continued root formation. Depending on the degree of pulpal inflammation, vital pulp therapies range from indirect pulp cap, direct pulp cap, partial pulpotomy, full pulpotomy, to the more invasive apexogenesis. For apexogenesis, up to 2/3 of the pulp is removed, while indirect and direct pulp caps leave the pulp largely intact.

It has been observed by some clinicians that conservative direct pulp cap or partial pulpotomy on immature teeth with open apices with the right biomaterials can give excellent results, even when the teeth were initially symptomatic [ref 2].

The current material of choice for vital pulp therapies are mineral trioxide aggregate (MTA) and the newer generation of calcium-silicate based biomaterials such as MTA plus (Avalon Biomed Inc), Biodentine (Septodont), Endosequence Bioceramic Root Repair Material (Brasseler USA), and others. These biomaterials show superior results to calcium hydroxide-based materials. They induce more and faster reparative dentin formation with less pulpal inflammation.

In the case shown below, a 11-year-old child presented with asymptomatic carious pulp exposure in tooth #18. At this age, the root of mandibular 2nd molar is still under development with open apices, as shown in the radiographs. The root formation typically completes around 14-15. The treatment plan is direct pulp cap to maintain pulpal vitality, allowing the roots to fully develop. Rubber dam was used to create a dry, aseptic environment and good visibility. The newest guidelines from the American Association of Endodontists (AAE) advised complete decay removal using caries detectors, even if it may lead to mechanical pulp exposure [ref 3]. The preparation was rinsed with sodium hypochloride for 5-10 minutes to disinfect and to achieve hemostasis. The preparation was dried, and a wet mix of white MTA about 1 mm in thickness was placed onto the entire roof of pulp chamber, including the exposed pulp tissue. Care was taken when applying bonding reagent onto the walls of the preparation, and when laying Activa (Pulpdent) from an automix syringe onto the top of MTA, so as not to disturb the MTA placement. The post-operative symptoms were usually minor, if any.



Pre-op Post-op 12 months

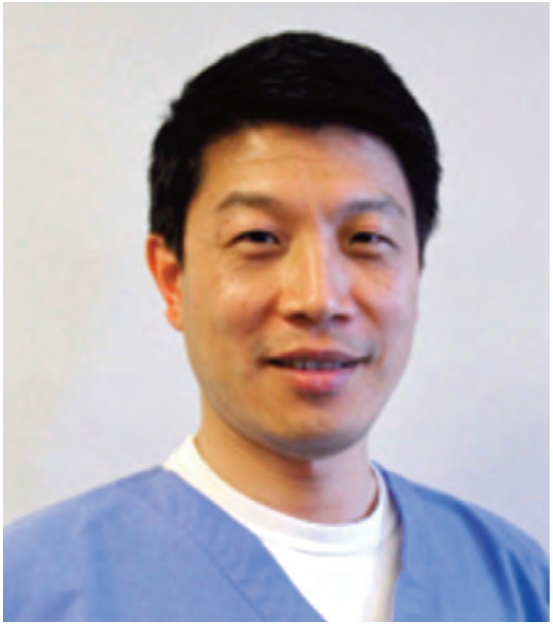
A more challenging situation can occur when the pulp was already necrotic in an immature permanent tooth, and the root has stopped developing. The treatment options were more limited. Conventional root canal therapy in these situations show poor outcomes because of the difficulty to achieve good apical seal in an open apex. Traditionally, apexification was probably the sole recommended procedure to produce dentinal bridge closing the open

apex, using long-term calcium hydroxide or single-step MTA apical plug. However, apexification does not appear to strengthen the root structure.

In recent years, The AAE has proposed a new procedure, termed regenerative endodontic procedures (REPs), with the goal to reintroduce the pulpal tissue and to allow further development of the root in a pulpless tooth [ref 4]. The regeneration of the pulp in a young patient is possible due to presence of mesenchymal stem cell populations remaining outside of the apex of a young pulpless tooth. When these cells are reintroduced into the disinfected pulpal space, supported with tissue scaffolds, and influenced by local tissue growth factors, they may expand and differentiate into cell populations resembling the niche cells of the pulp, thus allowing continued root development. According to the AAE treatment considerations [ref 5], a typical regenerative procedure starts with disinfection of the canal system with a mild disinfectant, such as 1.5% sodium hypochloride, and with minimal mechanical instrumentation to avoid damaging the stem cells near the apex. Calcium hydroxide paste is then placed short of the apex for 2-3 weeks.

At the second visit, the canal space is often adequately cleaned. The tooth is anesthetized with local anesthesia without epinephrine to facilitate bleeding. The canal is conditioned with 17% ethylenediaminetetraacetic acid (EDTA), which has been shown to release growth factors embedded within the dentin. A hand file is used to induce bleeding from the apex into the canal space, up to the cervical level.The blood contains mesenchymal stem cells and the blood clot acts as tissue scaffolds. A collagen barrier is placed on top of the blood clot, and calcium silicate-based material is laid on top of collagen as pulp space barrier. The access opening is then restored with glass ionomer or bonded composite.

Periodic follow-ups are then scheduled to assess the healing of the apical lesion as well as continued root development. In majority of subjects studied, the regenerative endodontic procedures were successful, showing increases in the root length and/or the width of canal walls [ref 4]. New studies are still ongoing to explore alternative sources of stem cells, scaffolding materials, and growth factors.



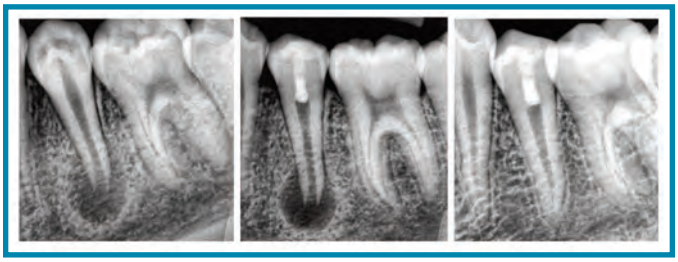
Dr. Xudong "Don" Yang, D.D.S., Ph.D., M.M.Sc.

Dr. Xudong ("Don") Yang is an Endodontist in Salinas, CA. He graduated from University of the Pacific Arthur A.Dugoni School of Dentistry in 2004, and completed his post-doctoral specialty training in Endodontics at Harvard School of Dental Medicine. During his residency, he was involved in research on tooth development in genetically engineered mice at Brigham and Women's Hospital in Boston. Dr. Yang has also received a PhD in Molecular Biology from Oklahoma State University.

In his spare time, he enjoys photography, traveling, and model railroading.

Endodontic Management of Open Apex in Children (Continued)

In the case shown below, a 11-year-old child presented with necrotic pulp and apical periodontitis with fistula in #20 due to dens evaginatus. The mandibular 2nd premolar t ypically erupts between 11 -12 years of age, and the apex is closed between 13-14. The regenerative endodontic procedure was carried out according to the abovementioned AAE considerations. At 16 months, the tooth showed resolution of the apical lesion and completed root development.



Pre-op Post-op 16 months

1. Moorres CF, Fanning EA, Hunt EE Jr. Age variation of formation stages for ten permanent teeth. J Dent Res. 1963;42:1490-1502

2. Camp JH and Fuks AB. Pediatric endodontics: Endodontic treatment for the primary and young permanent dentition. Pathways of the Pulp, 9th Edition, Chapter 22

3. https://f3f142zs0k2w1kg84k5p9i1o-wpengine.netdna-ssl.com/wp-content/uploads/2021/05/VitalPulpTherapyPositionStatement_v2.pdf

4. https://f3f142zs0k2w1kg84k5p9i1o-wpengine.netdna-ssl.com/specialty/wp-content/uploads/sites/2/2017/06/ecfe-spring2013.pdf

5. https://f3f142zs0k2w1kg84k5p9i1o-wpengine.netdna-ssl.com/specialty/wp-content/uploads/sites/2/2018/06/ConsiderationsForRegEndo_AsOfApril2018.pdf

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I am very happy to announce that even though I have retired from the bench, the future for you and your patients is very bright. I am sure many of you already know Irma Perez, Dental Assistant and Technician with Dr. Curtis Jansen for over 22 years. She is taking over my laboratory and is able and ready to provide you with excellent fixed and removable appliances. Irma is not only very competent with all conventional techniques, she is exceptionally skilled in the digital domain of today's Dentistry, so much so that she is qualified to train both you and your staff if desired.

After my 52 years as a member of the Dental Team, I am fortunate to feel a sense of satisfaction that my dedication to striving for Quality and Art in Artificial Teeth will be enhanced in the talented hands and mind of Irma Perez. I am certain that you will find her to be an extremely nice and dedicated person who will soon become a significant asset to yourself, your staff, and your patients.

Thank you for your patronage and Best Wishes for the Future,

Steve Geib

Endodontic Clinical Update: Future Technologies Here Today

Endodontic therapy has been changing in recent years. From new files to CBCT imaging, to new pulpal and periapical diagnoses, the list goes on and on. And on that list is the GentleWave System - this is something you need to know about because you may soon hear about it from your patients googling root canals.

Sonendo® developed the GentleWave® Technology in pursuit of improving the efficacy and efficiency of root canal treatment, as well as the patient experience. Root canals have depended primarily on files to manually remove infected tissue and tooth structure from inside the tooth. Files, however, have limited reach inside complex root canal anatomy 4 and can leave behind infected tissue 3 and bacteria, leaving the tooth susceptible to reinfection.

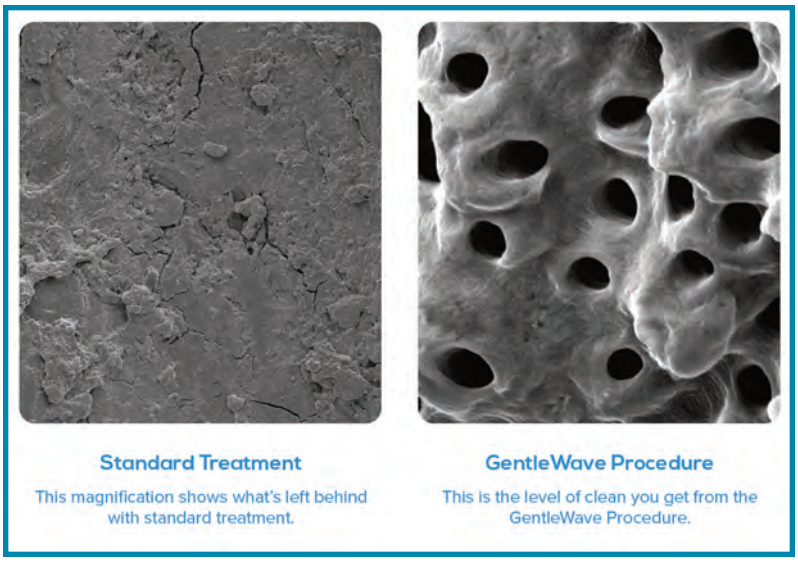
The minimally invasive 1 approach of the GentleWave® Procedure minimizes manual instrumentation 1, 3 and instead utilizes a powerful vortex of procedure fluids3 and acoustic energy that cleans the deepest, most complex portions of the root canal system 1, 3

During the GentleWave Procedure, fluids undergo a multistage optimization process that energizes and propels fluids throughout the root canal system 1, 3 to remove infected tissue, debris and bacteria.3 The result is a more efficient and effective clean that promotes early healing.2

1Molina B et al. (2015) J Endod. 41:1701-5 2 Sigurdsson A et al. (2016) J Endod. 42:1040-48 3Vandrangi P et al. (2015) Oral Health 72-86

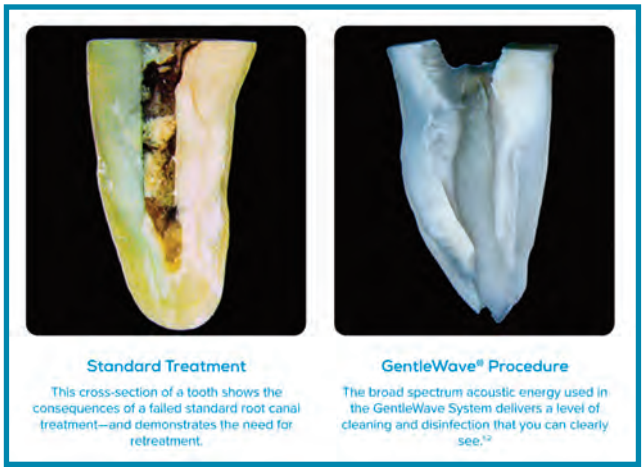
For more information, visit www.sonendo.com

The MBDS would like to acknowledge Amanda Anderson and Eric Appelin, DMD for providing the above content re: GentleWave.



Standard Treatment
This magnification shows what's left behind with standard treatment.

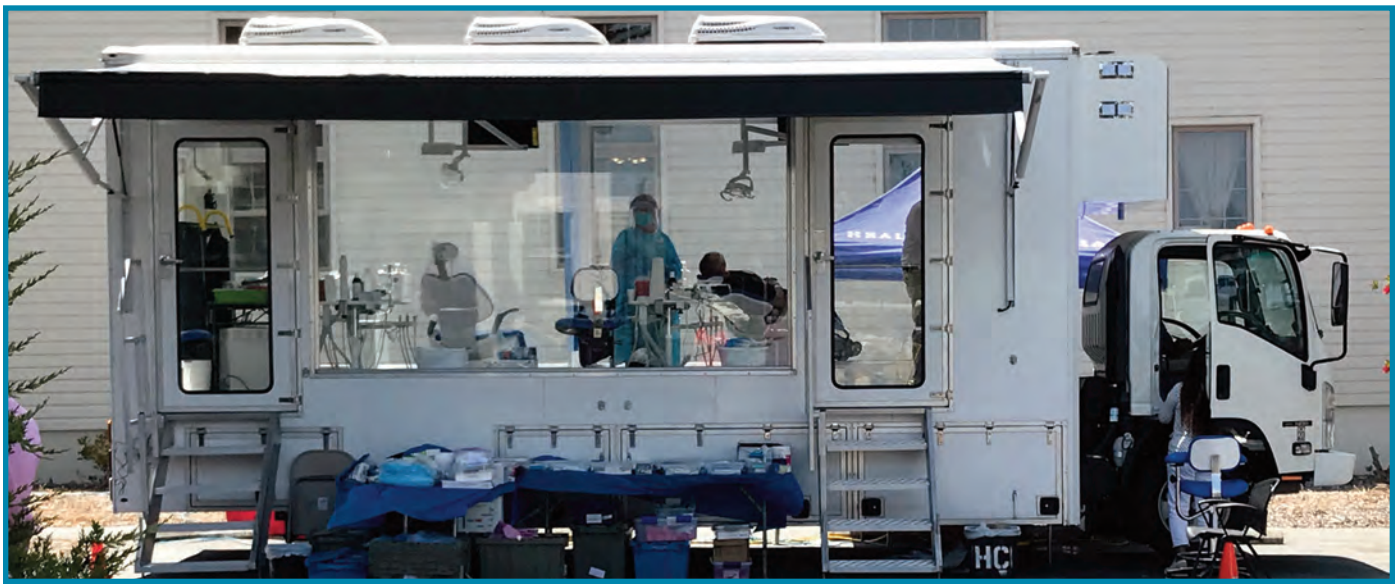
GentleWave Procedure
This is the level of clean you get from the GentleWave Procedure.



Standard Treatment
This cross-section of a tooth shows the consequences of a failed standard root canal treatment—and demonstrates the need for retreatment.

GentleWave® Procedure
The broad spectrum acoustic energy used in the GentleWave System delivers a level of cleaning and disinfection that you can clearly see.[1,2]

2021 Veterans Stand Down



On Friday, June 18th, yet another successful Stand Down event was held here in the Monterey Peninsula. Taking place at the Veteran's Transition Center in Marina, the event was organized by California Care Force (CCF).

The Monterey Bay Dental Society was once again represented well, and several of our member dentists were in attendance to volunteer their time. A mobile dental van (owned by private dentist, Dr. Puneet Pande, of Milpitas Smile Design) was utilized for the event. Designed specifically for events like this one, it was actually the first opportunity for it to be put to use! The organization "Healing California" (https://healingca.org/) leased the portable unit, and provided all the instruments and sterilization equipment for the day.

Special thanks to our MBDS members, Drs. Chris Mule, James Alderete, David Higginbotham, and Richard Kent for showing up to support the cause. Local dental hygienists, Teresa (sorry for the lack of last name,) assisted the doctors, while Jenny Klugman, RDH and others helped with triage. In total, over 30 patients received dental services, which included triage exams, x-rays, fillings, and surgical extractions. Those who weren't in urgent need and those who would need continuing attention after treatment were referred to Dentistry 4 Vets, the local dental clinic designed to serve the needs of needy Veterans. Thank you to Dr. George Yellich and Patricia Yellich for masterminding this clinic and to their Volunteer Board of Directors for making their clinic available to the needy veterans from the Stand Down. At the end of the day, almost $12,000 in dental services were provided, and several Veterans were able to receive their COVID-19 vaccination as well.

It is an incredible honor to be able to serve our esteemed Veterans here on the Central Coast, and the MBDS will keep our members posted about future Stand Down dates.

California CareForce

The charitable arm of the California Association of Oral and Maxillofacial Surgeons

2021 MONTEREY STAND DOWN CLINIC

$12,318.50 WORTH OF BASIC HEALTHCARE SERVICES

California CareForce (CCF) was excited and honored that the Veteran's Transition Center of Monterey and the Stand Down Committee requested CCF be a part of this important event. This was our first clinic in Monterey. It went so well, we look forward to returning next year.

A huge thank you to our sponsors,
Veterans Transition Center of Monterey,
Coast Hills Credit Union and MUFG Union Bank.

31 Dental Patients Served...

54 x-rays
30 triage exams
5 fillings
8 simple extractions
7 surgical extractions
20 referrals to Dentistry4Vets

12 Medical Patients Served...

12 exams
3 Covid vaccinations

Thank you:

Veteran's Transition Center of Monterey
Healing California
Dentistry4Vets
VA mobile medical van

"It was a great experience. Hope to do it again. This was a very special clinic with very special clients."
-- Clinic volunteer

272 HOURS SERVED BY 34 VOLUNTEERS IN ONE DAY

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save and serve one veteran at a time.

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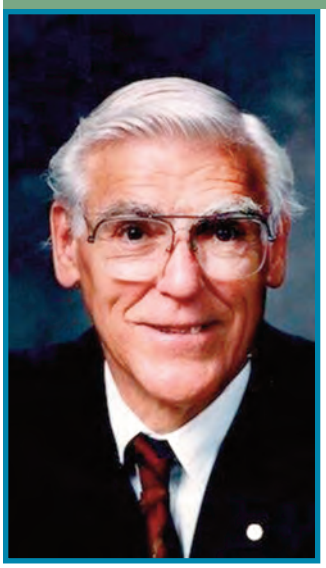
Call or go to our website for information on how you can help deserving veterans of Monterey, Santa Cruz, and San Benito Counties through volunteer efforts within our dental community.

www.Dentistry4Vets.org

email: info@dentistry4vets.org
Phone: 831 744 VETS (8387)



Edwin Joe Hancock

E. Joe Hancock, DDS, passed away on Friday, February 12, 2021 at the age of 86, after a 31 year battle with colon cancer. He was supported during his final illness by his far-flung family and zoom electronic technology, bringing together members in New York, Boston, Salinas and Melbourne, Australia for very frequent visits.

Born in Clarion, Iowa, to John and Clara Hancock, Joe moved with his family to Oelwein, Iowa, graduating from Oelwein HS in 1953. He attended the State University of Iowa for undergraduate study, followed by graduation from SUI School of Dentistry in 1959.

After graduation he married Linda (Greenley) Hancock and immediately reported for duty at the U.S. Naval Hospital in San Diego, CA where he had received a one year dental internship. His military obligations completed, he made the short move to Salinas where he opened his office and practiced dentistry for almost 50 years. He enjoyed his patients, often seeing 2 or 3 generations within families—many of whom became friends. He and Linda were quickly absorbed into the life of the community, which at that time had a population of a mere 52,000.

Joe never neglected his obligation to his chosen home town, serving in various board positions with the United Way, The Salvation Army, The Community Concert Association, Chairman of the Park and Recreation Commission and as Vice President of the Monterey County Symphony. He was a director of the California Rodeo, serving as chairman of the Miss CA Rodeo Committee for over 15 years. He received the Saddleman's Award in 2004. Professionally he served as president of the Monterey Bay Dental Society, becoming a delegate to the CDA House of Delegates.

Joe enjoyed a very strong spiritual life, demonstrated by his devotion to his church, First Presbyterian Church in Monterey.

He is survived by his wife of 61 years, Linda, and lovingly remembered by his children, Nancy Hancock Baker and Tom Hancock (his wife, Andrea), four grandchildren, Clare and Sam Baker (Melbourne, Australia) and Holly and Alex Hancock of Boston MA. Grandpa Joe will always be remembered for his calm and kind demeanor, his warm smile, his strong work ethic and his loving commitment to family.

Closer Walk, Inc.
22 Soledad Street
Salinas, CA 93901
831-809-5262

June 5, 2021

Donations for Homeless Outreach

To whom it may concern:

Closer Walk, Inc. is a California not-for-profit corporation to assist the homeless in Chinatown, Salinas. Closer Walk is entirely volunteer-staffed and self-funded, and donations are greatly appreciated. We are open several days a week, including Saturday evenings, and we distribute food, clothing, and hygiene items.

If you would like to donate toothpaste and toothbrushes, they can be mailed to my home address at:

David Balch
21433 Riverview Court
Salinas, CA 93908

In addition, for businesses on the Monterey Peninsula, you can contact Richard Sato by text at 831-277-7699 and arrange for a donation pick-up. If you have any questions, please do not hesitate to contact me at 831-809-5262. Thank you so much for your generous consideration.

Blessings,

David W. Balch

Closer Walk is a California not-for-profit corporation. Closer Walk is still in the process of applying for 501(c)(3) tax exempt status, so at present, donations are tax deductible.

"Go as long as you can, and then take another step."

— Anonymous

(M) -Mandatory Courses for the RDA application: Dental Practice Act, 8 hour Infection control, Coronal Polish, X-ray Certificate, Pit and Fissure Sealant is required upon the first renewal period of RDA license. The supervising licensed dentist will be responsible for ensuring that each Unlicensed dental assistant, who is in continuous employ for 120 or more, has successfully completed board approved courses in Dental Practice Act, basic life support and an eight hour course in infection control within one year.

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Parting Shot

PHOTO BY: HEIDI HEATH GARWOOD Free again.

> *The only real prison is fear, and the only real freedom is freedom from fear.*
>
> — Aung San Suu Kyi